



PATENT COOPERATION TREATY

PCT

**NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

SENMYO, Kenji
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38, Kanda-Higashimatsushitacho
Chiyoda-ku, Tokyo 101-0042
Japan

Date of mailing (day/month/year) 03 February 2004 (03.02.04)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference AB-445	
International application No. PCT/JP02/02780	International filing date (day/month/year) 22 March 2002 (22.03.02)
Applicant ASAHI GLASS COMPANY, LIMITED et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

EP,CA,CN,RO,US


The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AP,EA,AE,AG,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,BZ,CH,CO,CR,CU,CZ,DE,DK,DM,DZ,EC,EE,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,MZ,NO,NZ,OM,PH,PL,PT,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TN,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZM,ZW,OA

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. (41-22) 338.70.10</p>	<p>Authorized officer</p> <p> Emmanuel BERROD (Fax 338 7010)</p> <p>Telephone No. (41-22) 338 8389</p>
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Translation

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AB-445	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP02/02780	International filing date (day/month/year) 22 March 2002 (22.03.02)	Priority date (day/month/year) 29 May 2001 (29.05.01)
International Patent Classification (IPC) or national classification and IPC C03C 10/10, G02B 1/02, 5/28		
Applicant ASAHI GLASS COMPANY, LIMITED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 08 November 2002 (08.11.02)	Date of completion of this report 02 July 2003 (02.07.2003)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP02/02780

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1 - 8	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1 - 8	NO
Industrial applicability (IA)	Claims	1 - 8	YES
	Claims		NO

2. Citations and explanations

Document 1: EP 1078896 A1 (Kabushiki Kaisha Ohara), 28 February 2001

Document 2: JP 59-223249 A (Nippon Electric Glass Co., Ltd.), 15 December 1984

Document 3: JP 56-149344 A (Nippon Electric Glass Co., Ltd.), 19 November 1981

Document 4: US 4310595 A (Corning Glass Works), 12 January 1982

The invention set forth in Claims 1 to 8 does not involve an inventive step in the light of Documents 1 to 4 cited in the international search report.

Document 1 sets forth preferable characteristics for glass for optical filters, and it indicates that it is preferable to use a crystalline glass with a thermal expansion coefficient ranging from 95×10^{-7} to $140 \times 10^{-7}/^{\circ}\text{C}$ at temperatures from -20°C to $+70^{\circ}\text{C}$, a Young's modulus of 85Gpa or greater, and light transmittance of 60% or more at a wavelength of 950 to 1600nm.

Documents 2 and 3 disclose crystalline glass with a relatively high thermal expansion coefficient containing a nepheline crystal phase, and having a composition which overlaps with the composition described in Claims 2 and 3 of this application.

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It would be easy for a person skilled in the art to conceive of employing the crystalline glass described in Documents 2 and 3 having a relatively high thermal expansion coefficient suitable for the conditions in Document 1 as the crystalline glass for optical filters described in Document 1. Documents 2 and 3 disclose only nepheline crystals, and do not disclose a nepheline crystal phase containing K. However, as disclosed in Document 4, the existence of crystal systems containing K as a nepheline crystal phase is already known. Therefore the composition disclosed in Documents 2 and 3 may contain K to the extent described in Claims 2 and 3 of this application, therefore it would not be particularly difficult for a person skilled in the art to obtain the crystalline glass of the invention described in Claims 1 to 8 of this application by optimizing the crystalline glass having the composition disclosed in Documents 2 and 3 to be better suited to the conditions of Document 1. In addition, the effect of the invention set forth in Claims 1 to 8 of this application is within the scope which could be expected in the light of Documents 1 to 4.